



## Intern Analytical Laboratories, Inc.

Client Name: IDAHO DEPARTMENT OF HEALTH AND WELFARE

Project No.: 980271

Project Name: REED'S LANDING

Sample No.: 2001050175-1

Description: 2429

Date Received: 05/15/2001

Date Collected: 05/09/2001

Collected by: KAY KIEWER

Matrix: WATER

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
<b>B.H. QUARTERLY, TOTAL METALS</b>				
Antimony as Sb (Total)	<0.05	mg/l	200.8	05/29/2001
Arsenic as As (Total)	0.007	mg/l	200.8	05/29/2001
Cadmium as Cd (Total)	0.028	mg/l	200.8	05/29/2001
Copper as Cu (Total)	0.024	mg/l	200.8	05/29/2001
Lead as Pb (Total)	0.083	mg/l	200.8	05/29/2001
Mercury as Hg (Total)	<0.0002	mg/l	245.1CLP-M	05/30/2001
Zinc as Zn (Total)	9.93	mg/l	200.7CLP-M	06/01/2001
ICP/AA Batch#/Digest Date	1279	---	CLP A-2	05/30/2001
ICPMS Batch#/Digest Date	1270	---	3020A	05/24/2001
Mercury Batch #/Digest Date	132	---	245.1CLP-M	05/30/2001

## Barn Analytical Laboratories, Inc.

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Client Name: IDAHO DEPARTMENT OF HEALTH AND WELFARE

Project No.: 980271

Project Name: REED'S LANDING

Sample No.: 2001050175-2

Description: 2430

Date Received: 05/15/2001

Date Collected: 05/09/2001

Collected by: KAY KIEWER

Matrix: WATER

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
<b>B.H. QUARTERLY, TOTAL METALS</b>				
Antimony as Sb (Total)	<0.05	mg/l	200.8	05/29/2001
Arsenic as As (Total)	0.007	mg/l	200.8	05/29/2001
Cadmium as Cd (Total)	0.028	mg/l	200.8	05/29/2001
Copper as Cu (Total)	0.024	mg/l	200.8	05/29/2001
Lead as Pb (Total)	0.082	mg/l	200.8	05/29/2001
Mercury as Hg (Total)	<0.0002	mg/l	245.1CLP-M	05/30/2001
Zinc as Zn (Total)	10.0	mg/l	200.7CLP-M	06/01/2001
ICP/AA Batch#/Digest Date	1279	----	CLP A-2	05/30/2001
ICPMS Batch#/Digest Date	1270	----	3020A	05/24/2001
Mercury Batch #/Digest Date	132	---	245.1CLP-M	05/30/2001

**Western Analytical Laboratories, Inc.**

Client Name: IDAHO DEPARTMENT OF HEALTH AND WELFARE

Project No.: 980271

Project Name: Reed's Landing

Sample No.: 2001050176-2

Description: 2432

Date Received: 05/15/2001

Matrix: WATER

Date Collected: 05/09/2001

Collected by: Jane Bravo

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
<b>B.H. QUARTERLY, DISSOLVED METALS</b>				
Antimony as Sb (Dissolved)	<0.05	mg/l	200.8	05/24/2001
Arsenic as As (Dissolved)	<0.005	mg/l	200.8	05/24/2001
Cadmium as Cd (Dissolved)	0.032	mg/l	200.8	05/24/2001
Copper as Cu (Dissolved)	0.024	mg/l	200.8	05/24/2001
Lead as Pb (Dissolved)	0.089	mg/l	200.8	05/24/2001
Mercury as Hg (Dissolved)	<0.0002	mg/l	200.8	05/24/2001
Zinc as Zn (Dissolved)	10.2	mg/l	200.7CLP-M	05/22/2001
Mercury Batch #/Digest Date	NA	---		

## ern Analytical Laboratories, Inc.

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Client Name: IDAHO DEPARTMENT OF HEALTH AND WELFARE

Project No.: 980271

Project Name: Reed's Landing

Sample No.: 2001050176-3 Description: 2433

Date Received: 05/15/2001

Date Collected: 05/09/2001

Collected by: Jane Bravo

Matrix: WATER

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
<b>B.H. QUARTERLY, DISSOLVED METALS</b>				
Antimony as Sb (Dissolved)	<0.05	mg/l	200.8	05/24/2001
Arsenic as As (Dissolved)	<0.005	mg/l	200.8	05/24/2001
Cadmium as Cd (Dissolved)	0.032	mg/l	200.8	05/24/2001
Copper as Cu (Dissolved)	0.024	mg/l	200.8	05/24/2001
Lead as Pb (Dissolved)	0.088	mg/l	200.8	05/24/2001
Mercury as Hg (Dissolved)	<0.0002	mg/l	200.8	05/24/2001
Zinc as Zn (Dissolved)	10.1	mg/l	200.7CLP-M	05/22/2001
Mercury Batch #/Digest Date	NA	---		

**TerraGraphics**

AN ENVIRONMENTAL ANALYSIS FIRM

121 S. Jackson St.  
Moscow Id 83843  
208 882-7853**FAX****Date:** 09/26/01**Time:** 4:30 pm**To:** Mary Kay Voytilla, EPA R10**From:** Steve Gill, TerraGraphics**Subject:** Reed's Landing Water Quality**Pages:** 2 (Including cover sheet)

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**Marykay,**

Included are the sampling results from Reed's Landing taken 05/09/01 and 08/17/01.

Table 1A shows the analytical results for dissolved metals. Note that there were reductions in lead (dissolved) from 0.089mg/l to 0.038mg/l; zinc (dissolved) from 10.2mg/l to 0.97mg/l; and cadmium (dissolved) from 0.0011mg/l to < 0.004mg/l.

We are awaiting the total metals analysis for 05/09/01 from Northern Analytical.

Please contact me if you have additional needs.

Regards,  
Steve Gill

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Table 1A Analytical results for Reed's Landing - Dissolved Metals

Lab ID	Sample Date	Units	Antimony (Dissolved)	Arsenic (Dissolved)	Cadmium (Dissolved)	Copper (Dissolved)	Lead (Dissolved)	Mercury (Dissolved)	Zinc (Dissolved)	Comments
ARARs for Surface Water			0.014	0.000018	0.0011	0.0115*	0.0047*	0.000012*	0.10758*	
2432	05/09/01	mg/l	<0.05	<0.005	0.032	0.024 J	0.089	<0.0002	10.2	
2545	08/17/01	mg/l	<0.05	<0.005	<0.004	<0.012	0.038	<0.0002	0.97	

\*: Converted for dissolved concentrations per IDAPA 16.250

J: Qualified as an estimate, QA/QC criteria not met

Table 1B Analytical results for Reed's Landing - Total Metals

Lab ID	Sample Date	Units	Antimony (Total)	Arsenic (Total)	Cadmium (Total)	Copper (Total)	Lead (Total)	Mercury (Total)	Zinc (Total)	Comments
ARARs for Surface Water			0.014	0.000018	0.0011	0.0120	0.0032	0.000012	0.11	
2429	5/9/01	mg/l								In route from lab
2540	8/17/01	mg/l	<0.05	<0.005	<0.004	<0.012	0.042	<0.0002	0.98	

Table 2 Blanks For Reed's Landing

Lab ID	Sample Date	Units	Antimony (Total)	Arsenic (Total)	Cadmium (Total)	Copper (Total)	Lead (Total)	Mercury (Total)	Zinc (Total)	Comments
2431	5/9/01	mg/l	<0.05	<0.005	<0.004	<0.012	<0.003	<0.0002	<0.02	Dissolved Metals, Rinse
2434	5/9/01	mg/l	<0.05	<0.005	<0.004	0.020*	<0.003	<0.0002	<0.02	Dissolved Metals, Field
2538	8/17/01	mg/l	<0.05	<0.005	<0.004	<0.012	<0.003	<0.0002	<0.02	Dissolved Metals, Rinse
2539	8/17/01	mg/l	<0.05	<0.005	<0.004	<0.012	<0.003	<0.0002	<0.02	Dissolved Metals, Field

\* Failed QA/QC criteria, related samples from 5/9/01 qualified as estimated (J)

Table 3A Field Duplicates For Reed's Landing - Dissolved Metals

Lab ID	Sample Date	Sample	Antimony (mg/l)	Arsenic (mg/l)	Cadmium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Zinc (mg/l)
2432	5/9/01	Original	<0.05	<0.005	0.032	0.024 J	0.089	<0.0002	10.2
2433	5/9/01	Duplicate	<0.05	<0.005	0.032	0.024 J	0.088	<0.0002	10.1
		RPD	NA	NA	0%	0%	1%	NA	1%
2545	8/17/01	Original	<0.05	<0.005	<0.004	<0.012	0.038	<0.0002	0.97
2546	8/17/01	Duplicate	<0.05	<0.005	<0.004	<0.012	0.036	<0.0002	0.94
		RPD	NA	NA	NA	NA	5%	NA	3%

J: Qualified as an estimate, QA/QC criteria not met

Table 3B Field Duplicates For Reed's Landing - Total Metals

Lab ID	Sample Date	Sample	Antimony (mg/l)	Arsenic (mg/l)	Cadmium (mg/l)	Copper (mg/l)	Lead (mg/l)	Mercury (mg/l)	Zinc (mg/l)
2429	5/9/01	Original							
2430	5/9/01	Duplicate							
		RPD							
2540	8/17/01	Original	<0.05	<0.005	<0.004	<0.012	0.042	<0.0002	0.98
2541	8/17/01	Duplicate	<0.05	<0.005	<0.004	<0.012	0.044	<0.0002	1.09
		RPD	NA	NA	NA	NA	5%	NA	11%

RPD =  $\frac{|X1 - X2|}{(X1 + X2) * 2}$ 

X1 = ORIGINAL SAMPLE

X2 = DUPLICATE SAMPLE

&lt; Concentration below instrument detection limit

**TerraGraphics**  
ENVIRONMENTAL ENGINEERING, INC.

121 S Jackson St  
Moscow, Id 83843  
208 882-7858

## FAX

**Date:** 09/24/01

**Time:** 4:30 pm

**To:** Mary Kay Voytilla, EPA R10

**From:** Steve Gill, TerraGraphics

**Subject:** Reed's Landing Water Quality

**Pages:** 3 (including cover sheet)

Marykay,

Included are the sampling results from Reed's Landing taken on August 17, 2001. Not included are the total metals analysis, samples 2540 & 2541, because Northern Analytical just mailed them to IDEQ's Kellogg office on Sept 19, 2001. I have also included the date, time, specific conductivity, temperature, and pH measurements taken during this sampling event.

Regards,  
Steve Gill



## ern Analytical Laboratories, Inc.

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Client Name: IDAHO DEPARTMENT OF HEALTH AND WELFARE

Project No.: 2001-20

Project Name: B. H. MONTHLY MONITORING

Sample No.: 2001080232-4 Description: ~~254~~ 2545 RD  
Date Received: 08/22/2001  
Date Collected: 08/17/2001 Collected by: J. BRAVO/S. GILL Matrix: WATER

Laboratory Test	Measured Value	Test Units	Test Method	Date of Analysis
<b>METALS</b>				
Antimony as Sb (Dissolved)	<0.05	mg/l	200.8	08/11/2001
Arsenic as As (Dissolved)	<0.005	mg/l	200.8	08/11/2001
Cadmium as Cd (Dissolved)	<0.004	mg/l	200.8	08/11/2001
Copper as Cu (Dissolved)	<0.012	mg/l	200.8	08/11/2001
Lead as Pb (Dissolved)	0.038	mg/l	200.8	08/11/2001
Mercury as Hg (Dissolved)	<0.0002	mg/l	200.8	08/11/2001
Zinc as Zn (Dissolved)	0.97	mg/l	200.8	08/11/2001

Date/Time Collected: 08-17-01 7:23 AM

Conductivity 93  $\mu$ S/cmpH 5.13Temp 8.8°C

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Client Name: IDAHO DEPARTMENT OF HEALTH AND WELFARE

Project No.: 2001-

Project Name: B.H. MONTHLY MONITORING

Collected by: BRAVO &amp; GILL

Date Received: 08/17/2001

Matrix: WATER

Order No.: 2001080184

Sample Number	Description	Date Collected	Measured Value	Test Units	Test Method	PQL Value	Date of Analysis
Total Suspended Solids							
1	2544	08/16/2001	19	mg/l	160.2	1.00	08/23/2001
2	PREPARATION BLANK	---	<4	mg/l	160.2	1.00	08/23/2001
3	AQUEOUS CONTROL SAMPLE	---	95	% [80-120]	160.2	1.00	08/23/2001
4	DUPLICATE OF 080184-1	08/16/2001	18	mg/l	160.2	1.00	08/23/2001